Nov. 10, 1959 C. O. A. EKMAN 2,911,652

CAMOUFLAGING COVERING FOR MILITARY HELMETS

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Fig. 1.

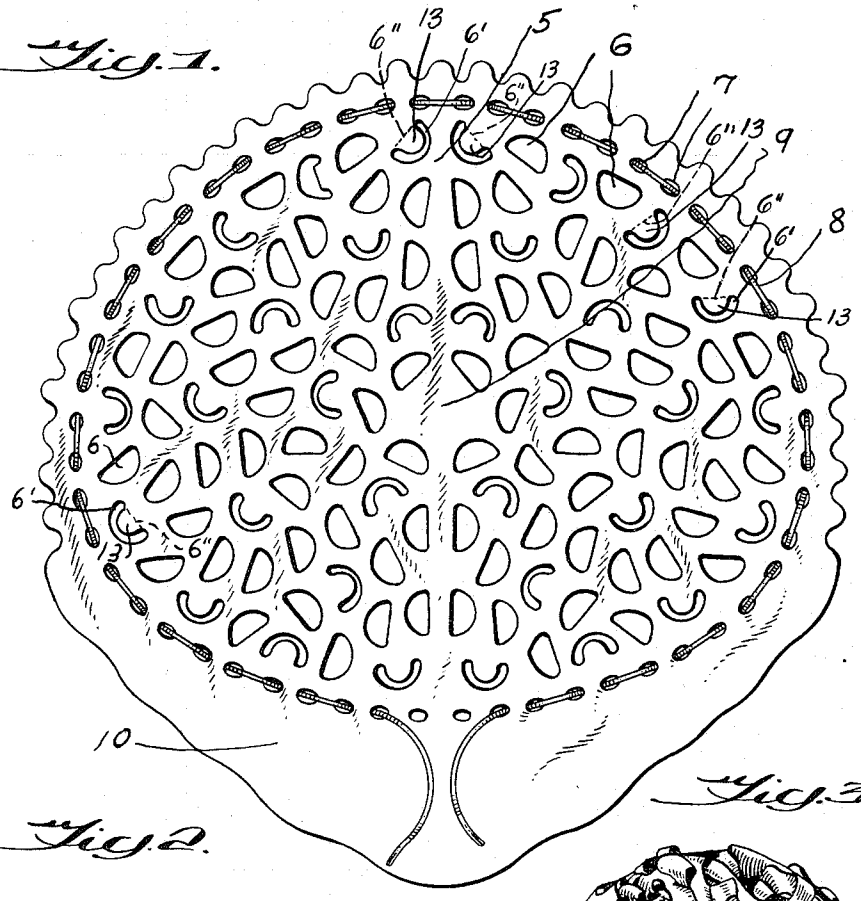
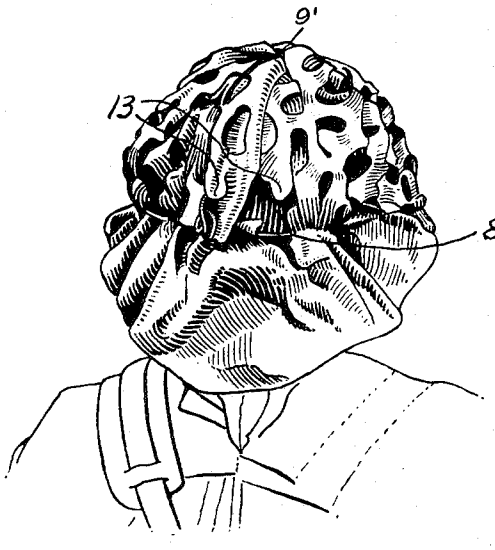
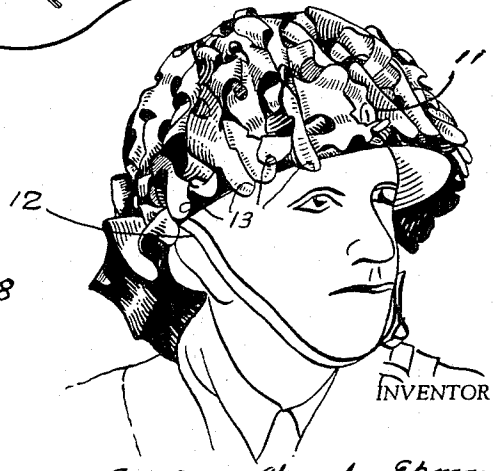


Fig. 3.

Fig. 2.





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CAMOUFLAGING COVERING FOR MILITARY HELMETS

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2 Claims. (Cl. 2—187)

For the camouflaging of military helmets a net arranged thereon would be used hitherto.

However, this method of camouflaging has been found to involve certain disadvantages. The camouflaging effect is not perfect, inasmuch as the net closely follows the shape of the helmet, which necessitates the arrangement of twigs, grass, leaves and the like in the meshes of the net.

This is above all a serious drawback for the reason that the proper application of such additional camouflaging calls for a time-wasting training of the soldier. Besides, the nets are easily subjected to bleaching, decay and the risk of fire.

The present invention refers to camouflaging coverings of plastic foil i.e., sheet material or film or other fabrics, which not only obviate the imperfections referred to above but have also been found to bring about a novel effect consisting in that suitably formed coverings may also protect the back part of the wearer's head, his neck and those parts of his face which are not covered by a gas mask against war gases in the form of drops and possibly against radiation.

The following examples show how such coverings may be produced.

From polyvinyl chloride film (for instance of a thickness of 0.12 mm.) containing such plasticizing agents that the material endures cooling down to low temperatures (for instance to −40° C.) without becoming brittle, and of a nature such that the material will not maintain combustion, and possibly also containing flame-quenching substances such as antimony oxide, an irregular piece is made, preferably of a substantially oval shape and so large as to fall irregularly in folds when arranged over the helmet, and thus breaking the characteristic silhouette of the helmet and the shoulder portion of the soldier.

It is also possible to attach objects between the helmet and the covering to bring about irregularities for the purpose of further breaking the silhouette and of reducing the reflection of light. Preferably, irregularities are thus arranged on the inside of the covering, either in the form of corks, rubber cushions, rags and the like, or by providing lacings in the covering.

The edge is preferably made lobate and the film provided with a pattern of apertures as irregular as possible. The punching of the apertures should preferably be performed so that the punched-out portions remain in the film, that is to say, they are not cut around completely, but the whole or a portion of the punched part is permitted to remain hanging from the sheet. The portion of the film which is intended to hang down over the neck of the soldier and the back part of his head to protect him against war gas and radiation is not provided with apertures. This portion may instead be reinforced with film or a coating, or may be made entirely from a material which is less pervious to war gases than is the plastic of the covering, such materials being Butyl rubber, saran, Teflon and others, for example.

An important condition for the camouflaging capacity

is the colour and the surface structure of the covering. Such plastic sheet materials or films may be used which already when produced are made suitable in these respects (correct colour, deadened and irregular surface).

For the securing of the covering onto the helmet a—preferably elastic—drawstring or band is threaded through holes in the covering in such manner that the band may be pulled tight around the helmet to retain the covering on the same. Preferably, the chin-strap of the helmet is moved in over the band or through eyelet openings in the covering, by which the band and the covering are prevented from sliding off the helmet.

The band **8** may be secured to the outer edge of the helmet by means of a hook or the like **11** attached to the band **8**.

The invention will now be described with reference to the appended drawing, in which

Fig. 1 is a view of an open-work blank of plastic sheet material, with draw string in place, for forming a camouflaging covering for a helmet;

Fig. 2 is a rear view of the covering in place over a helmet, the view showing the loose or "gathered" disposition of the blank at the top of the helmet; and

Fig. 3 is a front perspective view of the covering in place over a helmet, the view showing attachment of the front edge of the covering to the front portion or the helmet.

In Fig. 1, a substantially oval piece or blank **5** of plastic material is provided, over the greater part of its area, with a multiplicity of partially cut-out apertures **6**, **6'** of diverse and irregular shapes, and—surrounding the area of said irregular apertures and adjacent the periphery of the blank—a circle of eylet openings **7**, **7** to receive a drawstring or bank **8**. As shown in the drawing, some, **6**, **6**, of the apertures may be substantially semi-circular in configuration, while others of said apertures, as is indicated at **6'**, **6'** are substantially **C**-shaped, with unsevered tabs **13**, **13**, of the sheet material "hinged"—as indicated at dotted line **6''**—to the body of the blank. A substantially centrally located area **9** of blank **5** is left imperforate for a reason about to be stated, and at one end of said blank—intended to be disposed at the rear of the covering when formed and in place—the sheet material is left imperforate to provide a crescent-shaped portion **10** adapted to hang down over the back of the neck of the wearer of the helmet.

In preparing from blank **5** a covering for application to a helmet, a drawstring **8** is threaded through eyelet openings **7**, **7** with the free ends at the "back" of the covering, and the imperforate central area **9** of blank **5** is gathered into a tight mass, the blank being applied to the helmet with the gathered material turned inside, against the top of the helmet, as indicated at **9'**, and the covering is made fast to the helmet by tightening, and tying, the drawstring **8**. By disposing blank **5** on the helmet with the gathered material adjacent the latter, the result is attained that, in use, the upper (more central) part of the covering is prevented from lying close to the helmet but rather is disposed somewhat above the latter in loose gathers.

If so desired, one or more metal hooks **11** may be attached at spaced intervals along the drawstring, such hook or hooks being engaged with the edge of the helmet.

Also the chin strap of the helmet—indicated at **12**, Fig. 3—may be drawn through eyelet openings at opposite sides of the covering for further securing the latter to the helmet.

What is claimed is:

1. Camouflaging covering for a soldier's helmet, characterized in that the same consists essentially of a blank of opaque, light-absorbing, dull-surfaced plastic sheet material so large as to fall irregularly in folds over such

helmet, when arranged over the latter, to break the characteristic silhouette of such helmet, that portion of said blank which is intended per se to cover such helmet having a plurality of irregularly arranged punched-out apertures spaced thereover, some of said apertures being substantially semi-circular in configuration and others of said apertures being substantially C-shaped providing a tab, said blank having a series of eyelet openings arranged in a curved line adjacent the periphery thereof, said blank being provided with adjustable means for securing the blank to a helmet, said securing means including a band threaded through the eyelet openings of said curved line and adapted to be pulled tight about the helmet.

2. Camouflaging covering as defined in claim 1, characterized in that a gathered central portion of said blank

is arranged on that side of said covering which is intended to bear on the helmet.

References Cited in the file of this patent

UNITED STATES PATENTS

270,155	Trested	Jan. 2, 1883
914,206	Turney	Mar. 2, 1909
1,020,912	Kerr	Mar. 19, 1912
1,070,459	Hanzl	Aug. 19, 1913
1,646,193	Farkas	Oct. 18, 1927
1,704,576	Pellegrino	Mar. 5, 1929
2,370,734	Jost	Mar. 6, 1945

FOREIGN PATENTS

548,528	Great Britain	Oct. 14, 1942
752,347	Great Britain	July 11, 1956